

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/04841

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01K1/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01K H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 623 815 A (BIERBAUER FRANZ-JOSEF ET AL) 18 November 1986 (1986-11-18) abstract	1,2,8, 10,13 3-7,9, 11,12
Y	JP 59 119668 A (HAMAI DENKIYUU KOGYO KK) 10 July 1984 (1984-07-10) abstract	1,2,8, 10,13
A	US 4 935 660 A (GUREL MANFRED ET AL) 19 June 1990 (1990-06-19) the whole document	1-13
A	GB 1 340 870 A (SEWELL M; ELECTRONIC CONTROL SURVEILLANCE) 19 December 1973 (1973-12-19) the whole document	1
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *E* earlier document but published on or after the International filing date
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T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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& document member of the same patent family

Date of the actual completion of the International search	Date of mailing of the International search report
30 January 2004	05/02/2004
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel: (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3018	Zuccatti, S

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PCT/IB 03/04841

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 536 831 A (ENGLISH GEORGE ET AL) 20 August 1985 (1985-08-20) figures 4,5 -----	1
A	US 5 404 069 A (OLWERT RONALD J ET AL) 4 April 1995 (1995-04-04) figure 5 -----	1,11,13
A	US 5 670 840 A (LANESE GUSTINO J ET AL) 23 September 1997 (1997-09-23) figure 1 -----	1,11,13

INTERNATIONAL SEARCH REPORT

International App. on No
PCT/IB 03/04841

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4623815	A	18-11-1986	DE DE EP	8310715 U1 3469107 D1 0121819 A2	22-12-1983 03-03-1988 17-10-1984
JP 59119668	A	10-07-1984		NONE	
US 4935660	A	19-06-1990	DE CA DE EP	8803881 U1 1309451 C 58907732 D1 0334208 A2	11-05-1988 27-10-1992 07-07-1994 27-09-1989
GB 1340870	A	19-12-1973	CA DE FR IT NL	939721 A1 2165784 A1 2121112 A5 944451 B 7117837 A	08-01-1974 20-07-1972 18-08-1972 20-04-1973 04-07-1972
US 4536831	A	20-08-1985	AU AU CA DE EP ZA	588534 B2 4466285 A 1244389 A1 3581669 D1 0168017 A2 8504952 A	21-09-1989 16-01-1986 08-11-1988 14-03-1991 15-01-1986 26-02-1986
US 5404069	A	04-04-1995	CA DE DE EP ES JP JP KR MX	2089276 A1 69315108 D1 69315108 T2 0562871 A1 2108818 T3 2677941 B2 6044949 A 123797 B1 9301734 A1	28-09-1993 18-12-1997 04-06-1998 29-09-1993 01-01-1998 17-11-1997 18-02-1994 09-12-1997 01-09-1993
US 5670840	A	23-09-1997	CA DE FR GB JP	2108408 A1 4337807 A1 2697944 A1 2272569 A ,B 6203811 A	13-05-1994 19-05-1994 13-05-1994 18-05-1994 22-07-1994